



BP EXPLORATION

ARCO Alaska, Inc.



VIA FAX/ORIGINAL TO FOLLOW

August 23, 1997

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OFFICE OF AIR

Mr. Ray Nye
U.S. Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, WA 98101

Re: Response to draft revisions
EPA PSD permits for Prudhoe Bay, Alaska facilities

Dear Mr. Nye:

Thank you for the opportunity to review your draft revisions to the four PSD permits issued jointly to ARCO Alaska (AAI) and BP Exploration (Alaska) (BPX). As you know, the draft revisions you faxed to us on 8/4/97 were in response to our last revision request sent to Bonnie Thie on 7/17/97. AAI and BPX would very much like to bring the issue to rest with your issuance of the requested revisions. We do appreciate your efforts in this regard.

Format of the revision

We have developed for your use four attachments, one for each of the four Prudhoe Bay permits. These attachments are enclosed for your review. After our review of the current format of each permit, and consideration of how best to implement the revision, we concluded that the one feasible approach is to delete all lines in the current permits associated with emission limitations and insert the attachments we have developed. I say this primarily because we were instructed by Region 10's letter of 3/31/97 to submit unit-specific ton per year emission limits as part of our request. The four permits to be revised do not currently list individual emission units. In order to assign a ton per year emission limit, each individual unit will have to be listed within the permit. This cannot readily be done by strikeout and revision of existing emission limits since these are either field-wide or facility-wide for groups of turbines and heaters.

We have placed within the attachments all emission limits, including opacity limits, which apply. We have done this on a unit by unit basis. This includes all limits, even those we have not requested to change. Using this format, your final revision approval letter could simply delete the existing emission limitation lines of a given permit and insert the appropriate attachment.

Handling of ADEC permit actions which impact EPA emission limits

During this effort, we have identified several instances where subsequent to the issuance of EPA PSD permits, ADEC has revised emission limits issued by Region 10

Co-Operators, Prudhoe Bay Unit

by imposing a new BACT limit on a modified emission unit. Per your conversation with Randy Poteet, you advised that for cases where ADEC has imposed a more stringent emission limitation, the EPA emission limit should be rescinded. Our attachments reflect this point. For clarification, we do wish to list below those specific instances where this is the case:

AAI CCP Turbine 18-1813: ADEC limits for NO_x and CO are more stringent than PSD II.

BP GC#1/SIPW Turbines GTRB-51-8001A, GTRB-51-8001B, and
GTRB-51-8001C, Heaters H-51-8002A and 51-8002B:

Due to hourly operation restrictions, ADEC
limits are more stringent than PSD III.

An additional issue in this regard occurs under PSD IV for SO₂. EPA established a BACT limit of 20 ppm H₂S in fuel. In all cases where this limit applies, ADEC has raised it to either 25 or 30 ppm¹. In our Attachment 4 which contains the suggested limits for PSD IV, we have calculated SO₂ ton per year emission limits based on the ADEC emission limit. We believe in this instance that the EPA limit of 20 ppm has been superseded and should no longer apply.

Comparison of existing and requested ton per year emission limits

In our last submission of 7/17/97, we provided a Table 5 which contained a comparison of existing and requested ton per year emission limits. Subsequent to this submittal, we have determined that under the EPA administrative approval of 1/10/94 (referenced as SWAP IV), certain equipment for AAI was formally added to the PSD III and PSD IV permits. This equipment for the AAI CGF and STP is shown in our Attachments 3 and 4. As such, our comparison should be updated accordingly (see Table 1 in this letter). Please note that SWAP IV, as the Prudhoe Bay permitting in general, was done on a field-wide basis. It is not possible or reasonable to compare potential emissions on a facility by facility basis. Note also that we cannot provide a comparison for carbon monoxide, although we are confident our request results in an emissions decrease for this pollutant. The reason is that the technical document in support of the SWAP IV approval only contained emission estimates for NO_x, SO₂, and PM.

¹By letter of June 13, 1990, ADEC determined that creeping H₂S content of fuel gas is not a modification.

Table 1

PSD Permit	Current Emission Limits (TPY)	Total Requested Emission Limits (TPY)
PSD I	6,796 NO _x	2230 NO _x
PSD II	19,345 NO _x 518 PM	14,811 NO _x 320 PM
PSD III	6,907 NO _x	3,098 NO _x
PSD IV	11,647 NO _x 294 PM 72 SO ₂	9,220 NO _x 195 PM 77 SO ₂

Please note that as before, the numerical value for the current NO_x emission limit under PSD I is taken from the PSD I EPA technical support document. The PSD I NO_x limit currently has units of tons per year/hp. Also, all values in the Current Emission Limits column of Table 1 reflect adjustments under EPA Region 10 SWAP approvals. As shown, on a field-wide basis, primarily because not all permitted equipment was ever installed at Prudhoe Bay, total emissions in our revision request represent emission decreases. The one exception is a small increase for SO₂ under PSD IV which has already been approved by ADEC.

Throughout this effort, SECOR has worked closely with AAI, BPX, and yourself to reach a solution to this difficult permitting problem. I am submitting this letter on behalf of AAI and BPX based on SECOR's careful coordination with AAI and BPX. If you have questions about this request, please contact me at (907) 263-4741 for information about AAI sources and Alison Cooke at (907) 564-4838 for information about BPX sources.

Sincerely,



Randy Poteet
Environmental Consultant

Attachments

cc: Bill Blankenship, SECOR
Alison Cooke, BPX
Bob Hughes, ADEC